Ministry of
Northern Development
and Mines

Ontario

ONTARIO GEOLOGICAL SURVEY

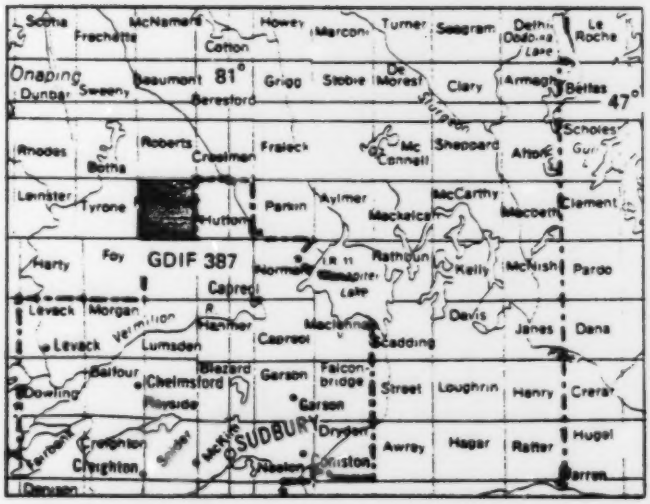
GEOLOGICAL DATA INVENTORY FOLIO

GDIF 387

KITCHENER TOWNSHIP

DISTRICT OF SUDBURY

Compiled by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP Scale: 1:1 013 760 or 1 inch to 16 miles

NTS Number 41 I/14

Mining Claim Map Number M.973

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey

1987: Kitchener Township, District of Sudbury; Ontario Geological Survey, Geological Data Inventory Folio 387, compiled by the staff of the Resident Geologist's Office, Sudbury, 24p., 2 maps.

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Date	Page Revised	Revised by

Date	Page Revised	Revised by

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ACCOMPANYING MAPS

Property Location Map 1
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Map Scale 1: 31 680 or 1 inch to ½ mile

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 02	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	**0.028 316 85**	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	R.A.
2	Assessment Files Research Office, Toronto	N.A.	R.A.
3	ODM General Index; 9 Volumes	Yes	R.A.
4	Catalogue of Airborne Geophysical Surveys (ODM)	Yes	R.A.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	Yes	R.A.
6	ODM Industrial Mineral Reports	No	R.A.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	R.A.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	Yes	R.A.
9	Newspaper Clippings File	Yes	R.A.
10	GSC Index to Publications	Yes	R.A.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	R.A.
12	OGS Index Maps	Yes	R.A.
13	Source Mineral Deposit Records (O.G.S.) (Mineral Occurrences File)	Yes	R.A.
14	Author - Subject Articles File	Yes	R.A.
15	Miscellaneous Papers: ODM & OGS	Yes	R.A.
16	ODM Geological Circulars: OGS Study Series , Reports	Yes	R.A.
17	ODM Preliminary Reports: ODM Bulletins	No	R.A.
18	ODM – OGS Open File Reports	Yes	R.A.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	R.A.
20	OGS Aggregate Resources Inventory Papers	No	R.A.
21	OGS Mineral Potential Maps	Yes	R.A.
22	Theses on File, Sudbury	Yes	R.A.
23	Aerial Photographs on File, Sudbury	Yes	R.A.

METALS AND MINERALS REFERENCES LIST

- △ anh. . . . . .Anhydrite
- △ ank. . . . . .Ankerite
- △ anna . . . . . Annabergite
- △ ap. . . . . .Apatite
- △ arg . . . . . Argentite
- △ As . . . . . .Arsenic
- △ asp . . . . . .Arsenopyrite
- △ asb . . . . . .Asbestos
- △ ba. . . . . .Barite
- △ be. . . . . .Beryl
- △ Bi. . . . . .Bismuth
- △ bn . . . . . .Bornite
- △ bran . . . . . .Brannerite
- △ bruc . . . . . .Brucite
- △ Cd . . . . . Cadmium
- △ calc. . . . . .Calcite
- △ carb . . . . . .Carbonate
- △ cel . . . . . .Celestite
- △ cc. . . . . .Chalcocite
- △ cp. . . . . .Chalcopyrite
- △ ch. . . . . .Chert
- △ clay . . . . . .Clay
- △ Co . . . . . Cobalt
- △ cob. . . . . Cobaltite
- △ cb. . . . . .Columbite
- △ Cu . . . . . .Copper
- △ cor . . . . . Corundum
- △ dol . . . . . Dolomite
- △ ep. . . . . Epidote
- △ ery . . . . . Erythrite
- △ fel . . . . . .Feldspar
- △ fl . . . . . .Fluorite (flurospar)
- △ fu. . . . . .Fuchsite
- ▲ gn. . . . . .Galena
- △ gt . . . . . .Garnet
- △ goe . . . . . .Goethite
- △ Au . . . . . Gold
- △ gf . . . . . .Graphite
- △ gl . . . . . Gravel
- △ gyp. . . . . .Gypsum
- △ hem . . . . . Hematite
- △ il . . . . . .Ilmenite
- △ Fe . . . . . .Iron
- △ IF. . . . . Iron Formation
- △ jas . . . . . Jasper
- △ kaol . . . . . .Kaolinite (kaolin)
- △ ky . . . . . Kyanite
- △ Pb . . . . . Lead
- △ lim . . . . . Limonite
- △ Li. . . . . Lithium
- △ mgst . . . . . Magnesite
- ▲ mag . . . . . Magnetite
- △ mc . . . . . Malachite
- △ Mn . . . . . Manganese
- △ mb . . . . . Marble
- △ mar. . . . . Marcasite
- △ ma . . . . . .Marl
- △ mi . . . . . Mica
- △ ml . . . . . Millerite
- △ mo . . . . . Molybdenite
- △ Mo . . . . . .Molybdenum
- △ mon . . . . . Monazite
- △ ne. . . . . Nephelite (nepheline)
- △ nc. . . . . .Niccolite
- △ Ni. . . . . Nickel
- △ Nb . . . . . .Niobium
- △ Pd . . . . . .Palladium
- △ peat . . . . . .Peat
- △ pent . . . . . .Pentlandite
- △ Pt. . . . . .Platinum
- △ py . . . . . .Pyrite
- △ pyl . . . . . Pyrochlore
- △ pyrl . . . . . .Pyrolusite
- ▲ po . . . . . .Pyrrhotite
- ▲ q . . . . . Quartz
- △ qcv . . . . .Quartz carbonate vein
- △ ra . . . . . .Radioactive minerals
- △ RE . . . . . .Rare Earths
- △ sd. . . . . Sand
- △ sgl . . . . . Sand and gravel
- △ ss . . . . . .Sandstone
- △ scap . . . . . Scapolite
- △ shee . . . . . .Scheelite
- △ serp . . . . . Serpentine
- △ sh. . . . . .Shale
- △ sid . . . . . Siderite
- ▲ si . . . . . .Silica
- △ Ag . . . . . .Silver
- △ sl . . . . . Slate
- △ sm . . . . . .Smaltite
- △ sod. . . . . .Sodalite
- △ spec . . . . . .Specularite
- ▲ sp. . . . . .Sphalerite
- △ spd. . . . . .Spodumene
- △ staur . . . . . .Staurolite
- △ stib. . . . . Stibnite
- △ st . . . . . .Stone
- △ talc. . . . . .Talc
- △ Te . . . . . .Tellurium
- △ td. . . . . Tetrahedrite
- △ th. . . . . .Thorite
- △ Th . . . . . .Thorium
- △ thuc . . . . . Thucholite
- △ ti . . . . . Titanite
- △ Ti. . . . . Titanium
- △ tour . . . . . .Tourmaline
- △ trap . . . . . .Trap rock
- △ W. . . . . Tungsten
- △ uran . . . . . Uraninite
- △ U . . . . . .Uranium
- △ verm . . . . . .Vermiculite
- △ Y . . . . . Yttrium
- △ Zn . . . . . .Zinc
- △ zr . . . . . Zircon

S. . . . . .Sulphide
cv. . . . . .Covellite

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps, and pages.

KITCHENER TOWNSHIP

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
A	Copenhagen Occurrence	gn, sp	Ni 1	MRC 12, p. 278	Files 0010-A1, 0012-D1, 0012-E1, 0011-B1
B	Morton Lake Occurrence (Taylor, C. J., claims)	q crystals	Si 1	---	AR 41, pt. 4, p. 41
C	No. 11 Extension ore body	mag	---	MRC 11, p. 346	Assessment Files 0011-A1, Hutton 0023

GDIF FORM NO. 1

KITCHENER TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	SHAFT SINKING		
1	Copenhagen Lead Syndicate (Copenhagen Occurrence, Heath Gold Mines Ltd.)			28[1]	28[1]	28												28[1]		
2	Copperville Mining Corp. Ltd. (Watts, M.) (0012-A1, 0012-C1)	69				70[1]		70						69						
3	Lowphos Ore Ltd. (National Steel Corp. Ltd.) (0010-B1, Hutton 0033-B1)				63 64 65			64												
4	Leschishin, O. (Copenhagen Occurrence) (0013-A1)			83																
5	Martin, H. E. (0010-A1)				57															
6	Miron, T. (Copenhagen Occurrence) (0012-D1)			78																
7	Moose Mountain Consolidated Ltd. (Hutton 0034)	80																		
8	National Steel Corp. of Canada Ltd. (Lowphos Ore Ltd.) (0011-A1, Hutton 0023)	67			68				65	65	65	66	66							
9	Quadrate Explorations Ltd. (Janus Explorations Ltd.) (Hutton 0026)	69										69		69						

KITCHENER TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	SHAFT SINKING		
10	Scotia Mines Ltd. (Copenhagen Property) (0011-B1)	67										67	67							
	I No data																			

Gdit. Form No.

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
1	Lowphos Ore	701	1963	W	40	32	204	mag	--
1a		702	1963	W	40	2	186	mag	--
1b		703	1963	W	42	23	200	mag	--
1c		801	1964	W	43	3	231	mag	--
1d		802	1964	W	44	57	212	mag	--
1e		?	?	W	No log				
1f		?	?	W	No log				
1g		909	1965	S86W	45	70	101	--	--
2		908	1965	S70W	42	3	227	mag	--
3	Martin, H. E.	1	1957	?	45	0	235	po	--
3a		2	1957	--	90	0	200	po	--
3b		3	1957	?	45	0	300	po	--
4	National Steel	1201	1968	W	40	9	276	mag	--
5		1202	1968	W	40	26	191	mag	--

GSO FORM NO. 1

KITCHENER TOWNSHIP

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing
8	Hunting Survey Corp. Ltd. National Steel Corp. of Canada Ltd.	Magnetic Electromagnetic Radiometric	100'	070°	¼ mile

GDIF FORM NO. 4

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

GDIF FORM NO. 6

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

Murgor Mines Ltd.

Northern Miner	July 24, 1969

Scotia Mines Ltd.

Northern Miner	June 29, 1967

GDIF FORM NO. 7

ODM GENERAL INDEX SEARCH

Words searched

COPENHAGEN LEAD SYNDICATE
COPENHAGEN OCCURRENCE
COPPERVILLE MINING CORP.
HEATH GOLD MINES
JANUS EXPLORATIONS
KITCHENER TP.
LESCHISHIN, O.
LOWPHOS ORE
MARTIN, H. E.
MIRON, T.
MORTON LAKE
MOSES, J. R.

Index Volume	Listing:	Report Volume	Part	Page
3	COPENHAGEN GOLD MINE, Hutton and Kitchener tps.			
	Mineralization	41	4	38
8	COPENHAGEN SULPHIDE OCCURRENCE			
	Kitchener Tp., Sudbury Dist.			
	mining property, report on	GR65		36
1	KITCHENER TP., SUD.			
	Iron ore	13	1	216,219
3	KITCHENER TP., Sud.			
	Gold prospects	41	4	38, 39
	Quartz crystals, notes and photo	41	4	38, 41
	Rocks	41	4	31, 32
	Timber	41	4	30
8	KITCHENER TP., SUDBURY DIST.			
	Geology of Leinster-Bowell area	GR65		
	iron	GR65		36, 38
	lead/zinc	GR65		36
9	KITCHENER TP., SUDBURY DIST.			
	quartz	MP70		320
6	LOWPHOS ORE LTD.			
	Capital; officers; operations:			
	(1957)	67	2	105
	(1958)	68	2	74
	(1959)	69	2	73
7	LOWPHOS ORE LTD.			
	Officers; operations:			
	(1960)	70		73
	(1961)	71		78
	(1962)	72		78
	(1963)	73		76, 77
8	LOWPHOS ORE LTD.			
	Hutton Tp., Sudbury Dist.			
	mining property, report on	GR65		8,33,36, 38
	report on Moose Mt. Mine	AR70		73, 74
		AR75		72, 73
		GR80		43

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

NATIONAL STEEL CORP.
QUADRATE EXPLORATIONS
SCOTIA MINES
TAYLOR, C. J.

Index Volume	Listing:	Report Volume	Part	Page
8	MARTIN, H. E.			
	Kitchener Tp., Sudbury Dist.	GR65		33, 34
1	MORTON LAKE, Kitchener and Robert tps.			
	Conglomerate	13	1	223
	Map showing iron locations	12		321
3	MORTON LAKE, Roberts and Kitchener tps.			
	Gold claims	41	4	39
	Quartz crystals	41	4	41
	Rocks	41	4	32
8	MORTON LAKE			
	Kitchener Tp., Sudbury Dist.	GR65		5
8	NATIONAL STEEL CORP. OF CANADA LTD., THE			
	Hutton Tp., Sudbury Dist.			
	mining property, report on	MP24		29
		MP34		23
		MP60		176
	report on Moose Mt. Mine	74		73, 74
		75		72, 73
		76		80, 81
		77		67
		78		46
		79		44
		80		50
		GR80		3,43-51
		GR108	41	
		MP17		103,104
9	NATIONAL STEEL CORP. OF CANADA LTD.			
	see also Lowphos Ore Ltd.			
	Hutton Tp., Sudbury Dist	ASR4		27
		ASR5		73
	report on Moose Mt. Mine	ASR7		90, 91
		MP64		106
		MP71		107
		MP78		91, 95
		MP91		109
3	TAYLOR, C. J.			
	Gold claims, Kitchener tp.	41	4	39
	quartz crystals on	41	4	41

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

KITCHENER TOWNSHIP

GDIF FORM NO. 8

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Card, K. D.	1966-67	Sudbury Mining Area	O.G.S. Map 2170	1" = 1 mile
	1975	Cartier Sheet	O.D.M. Map P.287	1" = 2 miles
Card, K. D., Lumbers, S. B	1974-75	Sudbury-Cobalt	O.G.S. Map 2361	1" = 4 miles
Dressler, B. O.	1983	Sudbury Mining Area, Western Part	O.G.S. Map P.2602	1:50,000
	1983	Sudbury Mining Area, Eastern Part	O.G.S. Map P.2603	1:50,000
	1984	Sudbury Geological Compilation	O.G.S. Map 2491	1:50,000
		GEOPHYSICAL MAPS		
O.D.M.-G.S.C.		Aeromagnetic Maps		
	1965	Venetian Lake, Ontario	1519G	1" = 1 mile
	1965	Sudbury, Ontario	7067G	1" = 4 miles
O.G.S.-G.S.C.	1976	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey	Map P.1610	1:250,000
Gupta, V. K.	1981	Bouguer Gravity and Generalized Geological Map of the Sudbury-Onaping Lake Area	O.G.S. Map P.2482	1:100,000
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
Boissoneau, A. N.	1968	Glacial History of Northwestern Ontario II. The Timiskaming Algoma Area	Can. Jr. Earth Sci. Vol. 5, No. 1	pp. 97-109

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Burwasser, G. L.	1979	Quaternary Geology of the Sudbury Basin Area	O.G.S. Report 181 Map 2397	1:50,000
Dep't of Energy, Surveys & Mapping Branch	1975	Topographic Map, Venetian Lake Sheet, 41 I/14		1:50,000
Gartner, J. F.	1978	N.O.E.G.T.S. Data Base Map, Cartier	5000	1:100,000
	1978	General Construction Capability Map, Cartier	5004	1:100,000
	1980	N.O.E.G.T. Study 94, Cartier		
		MINERAL POTENTIAL MAPS		
O.G.S. & Mineral Resources Branch	1982	Mineral Potential Map of Ontario East Central Sheet	OFR 5328	1" = 16 miles
Springer, J.	1977	Ontario Mineral Potential, Northern Part of Sudbury Sheet and Part of North Bay Sheet	O.G.S. Map P.1512	1:250,000
		GEOCHEMICAL		
		No data available, January 30, 1987		
		GEOLOGICAL REPORTS AND MAPS		
Adlington, R.	1982	Kitchener Township, Sudbury Data Series	O.G.S. Map P.2470	1" = 1 mile
Baer, A. J.	1970	Symposium on Basins and Geosynclines of the Canadian Shield	G.S.C. 70-40	pp. 143-158

GDIF FORM NO. 9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Bell, R.	1893	Report on the Sudbury Mining District, 1890-91	G.S.C. Vol. 5, Pt. F., Annual Report	
Blue, A.	1899	Mineral Industries of Ontario	O.B.M. AR49	
Buchan, K. L. & Card, K.D.	1985	Preliminary Comparison of the Petrographic and Paleomagnetic Characteristics of Nipissing Diabase Intrusions in Northeastern Ontario	G.S.C. Current Research, Pt. A., Paper 1A	pp. 131-140
Card, K. D.	1964	Kitchener Township, District of Sudbury	O.D.M. Map P.250	1" = ¼ mile
	1978	Metamorphism of the Middle Precambrian (Aphebian) Rocks of the Eastern Southern Province	G.S.C. 78-10	pp. 269-282
Card, K. D., Meyn, H. D.	1967	Kitchener and Bowell Townships	O.D.M. Map 2134	1" = ½ mile
Charlton, J. et al	1890	Report of the Royal Commission on the Mineral Resources of Ontario		566 pp.
Coleman, A. P.	1901	Iron Ranges of the Lower Huronian	O.B.M. AR10	pp. 181-212
	1904	Hutton Township Iron Range	O.B.M. AR13, pt. 1	pp. 216-221
	1912	Geological Map of Sudbury Nickel Region	Canada Dept. Mines, Mines Branch	1" = 1 mile
Dawson, G. M.	1896	Summary Report of the Operations of the Geological Survey	G.S.C. AR9, pt. A, No. 164	
Dep't of Mines, Ont.	1923	Report of the Iron Ore Committee	Kitchener Tp.	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Elver, R. B.	1960	Survey of the Canadian Iron Ore Industry during 1959	Min. Info. Bull. MR 45, Min. Res. Div., Dept. Mines & Tech. Surv.	
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Miller, W. G.	1901	Iron Ores of Nipissing District	B.O.M. AR10	pp. 177, 178
O.G.S. & Mineral Resources Branch	1982	Mineral Potential Map of Ontario East Central Sheet	OFR 5328	
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GDI FORM NO.9

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Author	Date	Title	Reference	Map Scales and/or Report Pages
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	1968	Iron Deposits of Ontario	MRC 11	p. 346
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GDIF FORM NO.9

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	1978	Metamorphism of the Middle Precambrian (Aphebian) Rocks of the Eastern Southern Province	G.S.C. 78-10	pp. 269-282
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Card, K. D., Lumbers, S. B.	1976	Evolution of Middle Precambrian Supracrustal Sequences of the Southern and Grenville Provinces, Great Lakes Region; Abstract in Program with Abstracts	G.A.C. Vol. 1	p. 62
Dupuis, L.	1972	Metallogenic Study of the Sudbury Mining Division. B.Sc., Laurent. Univ.	Sudbury File	
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Gross, G. A., McLeod, C. R	1980	A Preliminary Assessment of the Chemical Composition of Iron Formations in Canada	Ibid	pp. 223-229
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McLennan, S. M. et al	1979	Rare Earth Elements in Huronian (Lower Proterozoic) Sedimentary Rocks: Composition and Evaluation of the Post-Kenoran Upper Crust	Geochim. et Cosmochim. Acta, Vol. 43	pp. 375-388
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GDIF FORM NO. 4

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Speers, E. C.	1956	The Age Relation, and Origin of the Sudbury Breccia (2 Vols.) Ph.D., Queen's Univ.	O.D.M. MP2	p. 42
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	1984	Proterozoic Plate Tectonics in Canada with Evidence for a Late Proterozoic Rifting Event	Precambrian Research Vol. 25	pp. 233-256
Young, G. M., Nesbitt, H. W.	1985	The Gowganda Formation in the Southern Part of the Huronian Outcrop Belt, Ontario, Canada: Stratigraphy, Depositional and Regional Tectonic Significance	Precam. Res., Vol. 29	pp. 265-301

KITCHENER TOWNSHIP

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages

NOTES AND ADDENDA

Aerial Photographs Index

Scale 1" = ¼ mile

Year	Roll	Line	Number
1946	41	138	53-57
	42	138	2
	40	139	58
	40	140	59
	38	141	12
	37	142	1
1959	70	4635	85-88
	4	4635	2-5
	66	4634	55-61
	5	4634	109
	66	4633	101-107
	6	4632	72-78

GDIF FORM NO.8

ROBERTS

TYRONE

HUTTON

Morton Lake

Loonfeather Lake

Osbourne Lake

McGrindle Reed L.

Rapid River

McGrindle

Morton

Bigwood Lake

Copenhagen Bay

Copenhagen L.

46°52'30"

81°06'00"

2 7 8 3 9 10 4 6 5 1

Ministry of Northern Development and Mines

Ontario

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 387

(Map 1 of 2)

KITCHENER TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

EXPLORATION DATA FILE AREAS

GEOLOGICAL DATA INVENTORY FOLIO 387

(Map 1 of 2)

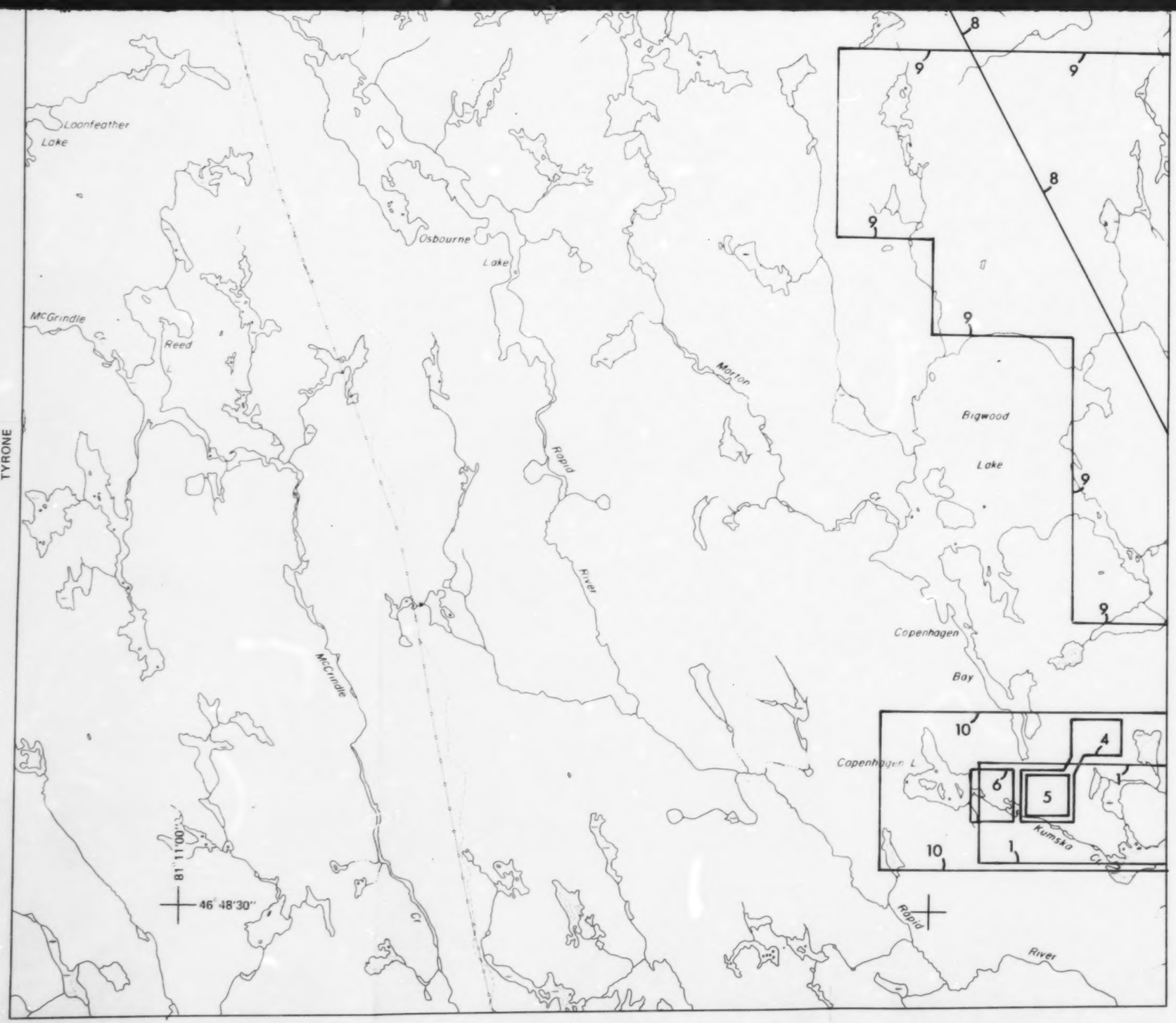
KITCHENER TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile



EXPLORATION DATA FILE AREAS

■ ① ⑥ Reference number is always inside work area outlined. See listing in text pages.

□ x ④ Small area exploration.

TYPES OF DATA SHOWN ON THIS MAP

GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- Geochemical sample site, with reference number
- Area of geochemical sampling, with reference number
- Age dating material sampling site, with reference number
- GC — Geochemical Anomaly

GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- Airborne electromagnetic anomaly Location of anomaly along flight line
- Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal loop; VLF - Very low freq; Turam; JEM - Crone Em - 16)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)
- R — Resistivity anomaly
- GR — Gravity anomaly
- Radiometric Site

MISCELLANEOUS DATA

- Trenching, pit
- Adit
- Rock quarry
- Sand and/or gravel pit

ROBERTS

TYRONE

HUTTON

Morton Lake

Loonfeather Lake

Osbourne Lake

McGrindle Cr.

Reed L.

Morton Creek

Rapid River

McGrindle River

Bigwood Lake

Copenhagen Bay

Copenhagen L.

quartz crystals

46°52'30"

81°00'00"

AM

AEM

RA

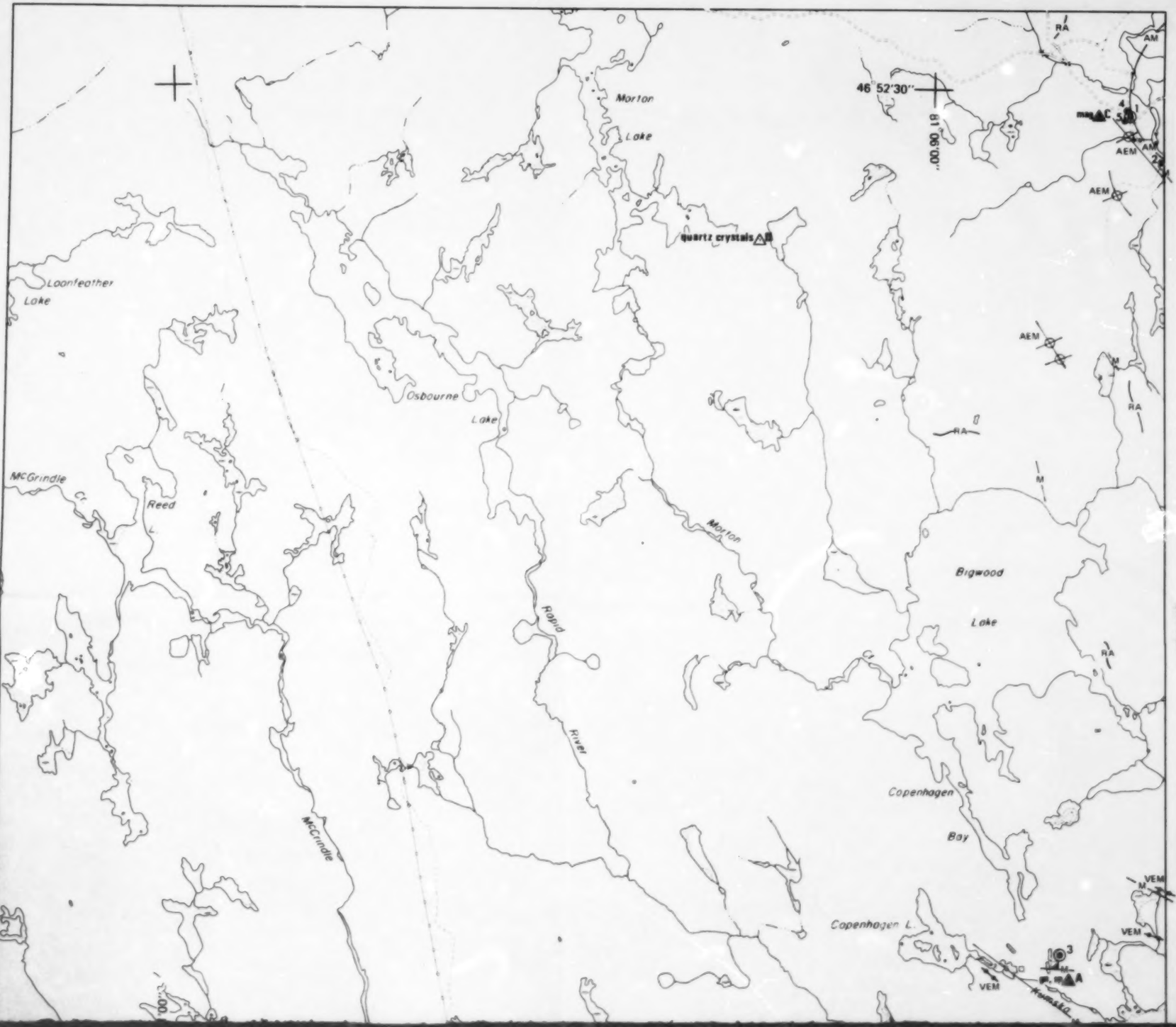
M

VEM

ROBERTS

TYRONE

HUTTON



Ministry of Northern Development and Mines

Ontario

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 387

(Map 2 of 2)

KITCHENER TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- Mineral occurrence at surface, with reference letter
- Mineral occurrence with shaft, depth given with reference letter
- Mineral occurrence reported but exact location uncertain, with reference letter
- Mineralized float with reference letter

DRILLHOLE

- Location of single drillhole, with reference number
- Location of closely spaced group of drillholes, with reference number
- Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number

- [ ] GC — Geochemical Anomaly

GEOPHYSICAL ANOMALIES

- [x] AM — Airborne magnetic anomaly
- [ ] Airborne electromagnetic anomaly
  Length of anomaly along flight line
- [x] Airborne electromagnetic anomaly
  Location of anomaly along flight line
- [x] Airborne electromagnetic anomaly
  Conductor axis: definite, probable, possible
- [ ] ARA — Airborne radiometric anomaly
- [x] M — Ground magnetic anomaly
- [x] VL — Ground electromagnetic anomaly
  (VL - Vertical loop; HL - Horizontal loop;
  VLF - Very low freq; Turam; JEM -
  Crone Em - 16)
- [x] RA — Ground radiometric anomaly
- [ ] IP — Induced polarization anomaly
- [ ] SP — Self potential anomaly
- [ ] AFMAG — Audio-frequency magnetic anomaly
  (total intensity)
- [ ] R — Resistivity anomaly
- [ ] GR — Gravity anomaly
- [ ] Radiometric Site

MISCELLANEOUS DATA

- [x] Trenching, pit
- [ ] Adit
- [ ] Open pit
- [x] Multiple Trenches, pits
- [ ] Rock quarry
- [ ] Sand and/or gravel pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 387

(Map 2 of 2)

KITCHENER TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

TYRONE

HUTTON

BOWELL

Loonfeather Lake

Osbourne Lake

McGrindle

Reed

Rapid

Bigwood Lake

River

McCrimmon

Copenhagen Bay

Copenhagen L.

Rapid River

quartz crystals

AEM

RA

VEM

81 11'00"

46 48'30"

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A. — Mineralized float with reference letter

DRILLHOLE

- 2 — Location of single drillhole, with reference number
- 2 — Location of closely spaced group of drillholes, with reference number
- 2 — Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number
- 2 — Property with drillholes which have not been plotted on map, with reference number
- 2 — Reverse circulation drillhole; churn drilling, with reference number